

Kitcher, Correspondence, and Success

Dennis Whitcomb
dporterw@eden.rutgers.edu
May 27, 2004

Concerned that deflationary theories of truth threaten his scientific realism, Philip Kitcher has constructed an argument that scientific success establishes not only the truth of crucial scientific beliefs but also their *correspondence* truth. This paper interprets and evaluates Kitcher's argument, ultimately finding it to be both unsound and unmotivated.

1. Introduction

There are two traditions of arguments from success to truth. One tradition is concerned with the *nature* of truth and concludes that some successful actions cannot be fully explained without attributing correspondence-true beliefs to the successful agents. This conclusion is taken to refute deflationary theories of truth by locating an explanatory role for correspondence. The other tradition is concerned with whether or not certain beliefs *are* true, and concludes that scientific success establishes the truth of crucial scientific beliefs. Arguments in this tradition often subsume their conclusions under the banner 'realism', and they often take scientific success to establish various and sundry other claims falling under that banner.¹

Philip Kitcher has combined these traditions with a hybrid argument that goes roughly as follows. Some successful actions can be explained by attributing deflationary truth to the beliefs on which they are based. These explanations can be extended if the beliefs are crucial to successful science. The best versions of these extensions attribute *correspondence* truth. Hence these beliefs are correspondence-true: a conclusion which entails the realist claim that these beliefs *are* true, while also refuting any deflationary

understanding of the *nature* of their truth.²

This paper summarizes the requisite theoretical background, reconstructs Kitcher's argument, defends deflationism from that argument, articulates a related but genuine problem for deflationism, and critiques Kitcher's view that deflationism threatens his realism.

2. Theoretical Background

Kitcher's correspondence theory of truth has it that beliefs are true only if the names that occur in them refer, in virtue of some causal relationship, to entities that exist independently of the believers.³ Deflationists reject Kitcher's conditions of independent existence and causal reference; on their theories, everything to be known about truth comes from the T-schema <'P' is true iff P> and everything to be known about reference comes from the R-schema <'a' refers to a, if a exists>. These deflationary themes have been developed in many different ways, but the differences between these developments can be ignored for our present purposes.

Kitcher's motivation for rebuffing deflationism is that he thinks it threatens his realism. The tenets of his realism are that crucial scientific beliefs are true, that these beliefs successfully refer, sometimes to unobservable entities, and that these entities exist independently of the people who hold the beliefs.⁴

We need just one more bit of background: Horwich's standard deflationist reply to the traditional correspondence success argument.⁵ This reply consists in constructing deflationary explanations of those successes which the traditional argument finds to be

explainable only with correspondence truth. Consider Ophelia ('O'):

- (1) O wants <O gets to the brook>.
- (2) O believes <O follows the path past the willows \rightarrow O gets to the brook>.
- (3) [O wants <O gets to the brook> & O believes <O follows the path past the willows \rightarrow O gets to the brook>] \rightarrow O follows the path past the willows.
- (4) O follows the path past the willows.
- (5) O's belief is true.
- (6) <O follows the path past the willows \rightarrow O gets to the brook> is true.
- (7) <O follows the path past the willows \rightarrow O gets to the brook> is true iff O follows the path past the willows \rightarrow O gets to the brook.
- (8) O follows the path past the willows \rightarrow O gets to the brook.
- (9) O gets to the brook.

So goes Horwich's explanation of Ophelia's success. Importantly, this explanation makes no appeal to correspondence. Following Horwich, deflationists standardly reject the traditional correspondence success argument on the grounds that similar explanations cover all the successes in question.

3. Kitcher's Argument

Kitcher's hybrid success argument is supposed to be immune to Horwich's standard deflationist reply. The argument is difficult to interpret; I think it is supposed to

go as follows.

Consider a subset ('S') of Horwich's explananda: successes based on beliefs that are crucial to systematically successful map-based science. The first premise, then, is

- (I) Horwich's explanations of the elements of S can be extended by explaining some of their premises.

For example, suppose Ophelia used a map. The explanation of (2), then, is this:

- (a) O competently reads the map and believes <the map is accurate>.
- (b) The map has a line joining points labeled 'castle', 'willows', and 'brook'.
- (c) Any competent reader of the map who sees a line joining three of its points 'A', 'B', and 'C' will believe <the map is accurate \rightarrow there is a path joining A, B, C>.
- (d) O believes <the map is accurate \rightarrow there is a path joining the castle, the willows, and the brook>.
- (e) O believes <there is a path joining the castle, the willows, and the brook>.
- (f) O believes <there is a path joining the castle, the willows, and the brook> \rightarrow O believes <O follows the path past the willows \rightarrow O gets to the brook>.
- (2) O believes <O follows the path past the willows \rightarrow O gets to the brook>.

And there is also a correspondence-based explanation of (3). Before allowing Kitcher to articulate that explanation, the deflationist might interject by pointing to the fact that he

too can explain (3), for instance in terms of some principle of practical syllogism. And since none of the claims (a) – (f) appeal to any notion of correspondence, the deflationist can adopt them as well. Combining his practical-syllogistic explanation of (3) with an assimilation of Kitcher’s explanation of (2), the deflationist would claim that the resulting extended version of Horwich’s explanation is at least as good as Kitcher’s own.

But Kitcher has a ready reply: the resulting extended explanation is inferior because it leaves the deflationist ‘beguiled’ by vocabulary, blind towards a certain mystery and lacking the resources to solve it. By using the same words to describe Ophelia’s world and her propositional attitudes, Kitcher says, the deflationist renders it mysterious why the action issued by Ophelia’s practical syllogism makes her succeed. Only by removing the beguilement can the deflationist solve the mystery, and there are just two ways for him to remove the beguilement. One is to produce a derivation of

(3'): [(O wants <D> & O believes)] → O follows the path past the willows.

The other is to produce a derivation of

(3'') [O wants <O gets to the brook> & O believes <O follows the path past the willows → O gets to the brook>] → O does some action A such that A(q),

where (q) is fulfilled by any action that gets Ophelia to the brook. But, Kitcher tells us, the deflationist lacks the resources to derive (3') or (3''), because no principle of practical syllogism entails such schematic statements.

Kitcher also tells us that the mystery disappears with the introduction a correspondence explanation of (3), which goes roughly as follows. Looking at the map brings certain tokens to Ophelia's mind. Much to her advantage, the etiological relationships between these tokens, the map, and the world are of just the right sort to make the tokens refer to the willows, the brook, and the path. Ophelia uses the map to make a plan for action. And, *since the tokens in her beliefs bear the right etiological relationships to the path and the willows*, the action that she plans on the basis of those beliefs turns out to be just that action that is following the path past the willows.

Thus, Kitcher argues, the correspondence theorist can unmysteriously explain (3). His extended explanation of Ophelia's success is constituted by the attachment of this explanation of (3) and the explanation of (2) to Horwich's original. Hence

(II) The extended explanations invoke correspondence truth.

And the deflationist's alternative extended explanation has additional problems over and above its mysteriousness. For even if he managed to solve the mystery, the deflationist would still be merely giving a recipe for explaining successes like Ophelia's one by one, each on its own terms. He would not by offering this recipe locate any common property that unifies the distinct truth-based successful actions to which the recipe is supposed to apply. But correspondence extensions of Horwich's explanations *do* unify these explananda, Kitcher tells us, because by attributing correspondence truth to distinct beliefs they identify a shared etiological structure. So, because of their relative mysteriousness and failure to unify,

(III) No deflationary extensions are as good as the correspondence extensions.

On the assumption that Horwich's explanations are at least our second best, then, our best explanations of the elements of S attribute correspondence truth to crucial scientific beliefs. Kitcher's argument thus works at once for the realist thesis that these beliefs are true and against any deflationary theory of the nature of their truth.

4. Deflationism Defended

So much for interpreting the argument. The deflationist can, I think, give a straightforward reply. First of all, he can solve the so-called mystery, and he can do so on Kitcher's own terms. This solution starts with something Horwich has already given us:

(8) O follows the path past the willows \rightarrow O gets to the brook.

Combined with the definition of (q), this yields

(g) (q) is fulfilled by O's following the path past the willows.

Which, in conjunction with (3), entails

(3'') (O wants <O gets to the brook> & O believes <O follows the path past the willows → O gets to the brook>) → O does some action A such that A(q).

The derivation of which is, by Kitcher's own lights, sufficient for solving the mystery.

So the deflationist's actual extension of Horwich's explanation consists in a deflationary reading of Kitcher's derivation of (2), a derivation of (3) from a principle of practical syllogism, and the foregoing solution of the mystery. The only task remaining for the deflationist in answering Kitcher's hybrid argument, then, is to address the point about unification. And, indeed, the deflationist has the resources to do so.

These resources stem from the fact that the elements of S form a special case in which the deflationary recipe calls for extra ingredients. The deflationary extension of Horwich's general recipe with respect to S attributes to each agent a belief concerning the map. In our example, the relevant belief is that the map is accurate and shows a line joining 'castle', 'willows', and 'brook'. If other people succeeded in getting from the castle to the brook by using the map, then the extended deflationary explanations of those successes would unify them with the following property: the agents' having the belief that the map is accurate and shows a line joining 'castle', 'willows', and 'brook'. While Kitcher unifies the successes in S by attributing the *same etiological structure* to the agents' beliefs, the deflationist unifies these successes by attributing the *same beliefs* to the agents. Thus the deflationist can provide extended versions of Horwich's explanations that are unificatory as well as unmysterious. Kitcher's hybrid argument is unsound because its third premise is false.

5. A Genuine Problem

Deflationism stands defended. But perhaps the defense fails to meet the spirit of Kitcher's demands. In this section I'll consider a way in which this might be so.

Our deflationist is working on a tight budget, and he may have written a rubber check. If the belief attributions on which his unification relies are to be defensible they will need to be supported by a theory of content, i.e. a theory of what individuates belief types. And the production of such a theory may well require resources beyond his means. This difficulty is pressed by one of the strands of the traditional correspondence success argument.

That strand, which is largely due to Hartry Field, goes roughly as follows.⁶ Some successes are based on true beliefs. Explanations of these successes attribute beliefs to the successful agents. These belief attributions need support from theories of content. Correspondence theorists can answer this charge with theories on which the content of any belief is determined by its etiology. Such answers are not open to the deflationist, because by giving them he would, in fact if not in name, attribute correspondence truth conditions to the agent's beliefs. Thus deflationists have a genuine problem: to produce theories of content that are friendly to their theories of truth.

Here is how this strand of the traditional correspondence success argument may point towards something right within Kitcher's new hybrid argument. On its face, Kitcher's derivation of Horwich's second premise is an answer to the question 'Why does Ophelia believe that if she follows the path past the willows then she gets to the brook?' If this is

Kitcher's question then, as we have seen, the deflationist can straightforwardly answer it. But suppose Kitcher really meant to ask 'What about Ophelia's belief makes it the belief that if she follows the path past the willows then she gets to the brook, as opposed to some other belief?' If this latter question is what Kitcher really meant to ask, then our deflationist's extended explanations fail to meet the spirit of his demands. For answers to this latter question need support from theories of content, and our deflationist has not yet given a theory of content. Moreover, Kitcher's own explanations can be understood as invoking an etiological theory of content to solve the deflationist's mystery. Thus we can charitably reinterpret Kitcher as calling for a deflationist-friendly theory of content.

Reinterpreted along these lines, Kitcher's hybrid argument highlights an important issue in the standing debate between deflationists and correspondence theorists. In particular, it highlights the issue of whether deflationists can produce theories of content that can support good explanations of successful actions that are based on true beliefs. But this issue existed before Kitcher's hybrid argument and is, as far as I can see, dialectically unaffected by it.

Thus far we have been focusing on the bearing of Kitcher's hybrid argument on deflationary theories of truth. But what of its bearing on his realism? Before addressing that issue, we should summarize the material covered so far. Kitcher has issued two challenges to the deflationist, neither of which refutes the deflationist's view. The first challenge is the claim that the deflationist hides a certain mystery. On a face-value interpretation this claim is false; the deflationist passes Kitcher's official test for unmysteriousness. The claim can be reinterpreted as the thesis that deflationists cannot produce theories of content. This thesis poses a genuine problem, and it can underwrite

Kitcher's questions. But it does not generate any heretofore unnoticed problems with which deflationists need to deal. The second challenge is the claim that deflationists cannot explanatorily unify a certain class of successes. This claim too is false; deflationists can unify the class with beliefs.

6. Realism and the Nature of Truth

Kitcher's realist claims are that crucial scientific beliefs are true, that these beliefs successfully refer, sometimes to unobservable entities, and that these entities exist independently of the people who hold the beliefs. Worried that some deflationists might accept these claims but not understand them in "the realist's preferred sense", he suggests that realists "want more than the right to attach 'true'...in a bland and deflationary fashion".⁷ This worry, in turn, is what motivates his argument that the success of map-based science establishes not only the truth but the *correspondence*-truth of certain crucial scientific beliefs.

But it is not obvious that deflationary interpretations of the truth of crucial scientific beliefs genuinely threaten Kitcher's brand of realism. At first glance, one would think that deflationism and the sort of realism with which Kitcher is concerned are largely unrelated. Thus it is worth some effort to try to figure out why he thinks otherwise. On this score I'll consider three potential reasons for believing that Kitcher's brand of realism is threatened by deflationism.

Traditional realist success arguments take success to establish realism. Since realist positions often entail the truth of crucial scientific beliefs, these arguments are often

taken to establish these truths. And since realist positions also often entail the thesis that the referents these beliefs exist independently of the believers, these arguments are also often taken to establish this independence claim. On some theories of truth (e.g. Kitcher's), the truth claim entails the independence claim. Realists who subscribe to such theories can jointly assert both claims by simply saying that success establishes truth.

When deflationists accept the inference from success to truth but maintain that this truth is deflationary, it might seem like they have absorbed the realist success argument without adopting its intended conclusion about independence. For on their theories, truth attributions do not entail independence claims. Thus a first reason for realists to adopt correspondence theories is that those theories protect their independence claims. This reason is clearly no good. Deflationists can take success to establish truth and independence both, so long as they separate the two.

This first reason is certainly too crude to be the basis of Kitcher's own resistance to deflationism. But it does set the stage for a slightly more plausible basis. Galileo argued that the telescope is a reliable indicator of the truth about celestial bodies on grounds that, as can be independently checked, it is a reliable indicator of the truth about terrestrial bodies. For since there is no relevant difference between celestial and terrestrial bodies, the telescope's degree of reliability should be the same with respect to both of them. Kitcher has applied Galileo's strategy to the inference rule from success to truth. As can be independently checked, the success-to-truth rule is reliable with respect to theories about observables. Since there is no relevant difference between theories about observables and theories about unobservables, then, the success-to-truth rule is reliable with respect to theories about unobservables as well. Since these theories are in fact

successful, he concludes, crucial scientific beliefs about unobservables are true.⁸

Kitcher's correspondence theory entails that the objects to which true beliefs refer exist independently of the people who hold those beliefs. Thus if his Galilean argument is about *correspondence* truth, it brings an additional realist bonus: the independence of unobservables. So a second potential reason for Kitcher's resistance is that his correspondence theory bolsters his realism by strengthening his Galilean argument.

The deflationist can respond by applying the Galilean strategy to the success-to-truth rule *and also* the success-to-independence rule, which licenses independence attributions to the referents of successful beliefs. Whereas Kitcher subsumes the success-to-independence rule under the success-to-truth rule, the deflationist separates the two. Just as before, the deflationist can adopt the case for independence while separating it from the case for truth. The second reason does sufficiently ground the resistance.

Where else could the resistance rest? Deflationists can claim that scientific beliefs are true, that they refer (even to unobservables), and that their referents have the right sort of independence. They *can't* claim that the reference in question is causal. So maybe Kitcher thinks that his causal theory of reference supports his realism.

Does it? Some arguments use the view that science has progressed over history to support realist claims about the science of today. Incommensurability theses undermine these arguments, because if science's stages are incommensurable, then claims of its progress are nonsense. Some of Kitcher's earlier work uses a causal theory of reference to defend progress arguments from this sort of objection.⁹ Since deflationists cannot appeal to causal theories of reference, this defense is threatened by their takeover. Thus a third potential reason for Kitcher's resistance to deflationism is that his causal theory of

reference supports his defense of progress arguments from incommensurability objections.

But it is far from clear that the causal theory is necessary for this task. And by no means do progress arguments exhaust Kitcher's realist resources. Indeed, the vast success of *current* science may well establish that realism its own. Besides, that realism is obvious enough to not require an argument, at least insofar as it is concerns observables. Otherwise it is more contentious, but still independent of deflationism.

The third reason, like the first two, fails to sufficiently ground the resistance. Unable to think of any additional reasons, I conclude that deflationary theories of truth are no threat to Kitcher's realism. His hybrid success argument, then, is unmotivated as well as unsound.¹⁰

References

- Boyd, Richard. (1984). 'The Current Status of Scientific Realism' In J. Leplin (ed.), *Scientific Realism*, University of California Press, pp. 41-82.
- Field, Hartry. (1986). 'The Deflationary Conception of Truth'. In G. Macdonald and C. Wright (eds.), *Fact, Science, and Value*, Oxford University Press, pp. 55-117.
- (1992). 'Critical Notice: Paul Horwich's *Truth*', *Phil Science* (59): 321-330.
- (2001). *Truth and the Absence of Fact*. Oxford University Press.
- Fine, Arthur. (1986). *The Shaky Game*. University of Chicago Press.
- Gupta, Anil. (1993). 'A Critique of Deflationism', *Phil Topics* (21/2): 57-81. Reprinted in S. Blackburn and K. Simmons (eds.), *Truth*, Oxford University Press, 1999, pp. 282-307.
- Horwich, Paul. (1998). *Truth, 2nd Edition*. Oxford University Press.
- Kitcher, Philip. (1978). 'Theories, Theorists, and Theoretical Change', *Phil Review* (87): 519-547.
- (1993). *The Advancement of Science*. Oxford University Press.
- (2001a). 'Real Realism: The Galilean Strategy', *Phil Review* (110): 151-197.
- (2001b). *Science, Truth, and Democracy*. Oxford University Press.
- (2002). 'On the Explanatory Role of Correspondence Truth', *PPR* (66): 346-364.
- Laudan, Larry. (1981). 'A Confutation of Convergent Realism', *Phil Science* (48): 19-49.
- Leeds, Stephen. (1995). 'Truth, Correspondence, and Success', *Phil Studies* (79): 1-36.

Maxwell, Grover. (1962). 'The Ontological Status of Theoretical Entities', in H. Feigl and G. Maxwell (eds.) *Scientific Explanation, Space, and Time*, University of Minnesota Press, pp. 3-27.

Psillos, Stathis. (1999). *Scientific Realism: How Science Tracks Truth*. Routledge.

Van Fraassen, Bas. (1980). *The Scientific Image*. Oxford University Press.

¹ In the first tradition, see Field (1986, 1992, 2001), Leeds (1995), and Horwich (1998). In the second tradition, see Maxwell (1962), Van Fraassen (1980), Laudan (1981), Boyd (1984), Fine (1986), and Kitcher (1993), and Psillos (1999).

² Versions of this argument can be found in several of Kitcher's recent writings. It appears in broad outline in Kitcher (2001a) and (2001b), where it plays a role in defending his overall 'moderate realist' philosophy of science. Its most detailed exposition is in Kitcher (2002), especially pp. 357-359. Less detailed arguments of a similar variety can be found in Gupta (1993: 293-294) and Psillos (1999: 248).

³ Kitcher (2002: 347). He parenthetically suggests that this theory applies only to *typical* beliefs.

⁴ Kitcher (2001a, 2001b, 2002). For an earlier and less moderate realism, see Kitcher (1993).

⁵ Horwich (1998a: 22-23). Following Horwich, I use '<p>' to abbreviate 'the proposition that p'.

⁶ Field (1986, 1992, 2001).

⁷ Kitcher (2002: 349, 352).

⁸ This is an abridged version of Kitcher's Galilean argument; see Kitcher (2001a, 2001b: 19-24).

⁹ Kitcher (1978, 1993: 75-80, 96-105). The extent to which he still advocates progress arguments is not clear; see Kitcher (2001b).

¹⁰ Thanks to Frank Arntzenius, Martin Bunzl, Kevan Edwards, Philip Kitcher, and Barry Loewer for helpful discussions.